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OCKADED WOODPECKER
RESEARCH AND MANAGEMENT
AT THE SAVANNAH RIVER SITE

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THE RED COCKADED WOODPECKER

The red-cockaded woodpecker (RCW) is truly a bird of the Old South. Longleaf pine forests, shaped by fire, once dominated the coastal plains of the South. These forests are thought to have supported the RCW in large numbers from Texas through the Atlantic States. As the landscape of the South has changed, suitable habitat now exists only in remnant locations, mostly on government landholdings scattered throughout the South.

The RCW has special habitat requirements. The birds construct cavities in old, living pine trees usually found in open pine habitats more than 80 years old. Each family group, called a clan, occupies its own colony site. A clan contains only one breeding pair; the remaining clan members are helpers, usually males. They assist in maintaining the colony and raising the young.

In addition to its roosting site, the clan requires many additional acres of pine forest to forage. The clan fulfills a beneficial role by eating large numbers of insects on the trunks and limbs of live pine trees.

Prescribed fire safely burns off undergrowth.

HABITAT TO SUPPORT A VIABLE POPULATION

The SRS objective is to support an effective population of 250 breeding colonies. The SRFS will ensure suitable habitat to support 400 colonies. The birds will occupy an RCW management area of about 78,000 acres of pine forest.

During any given year not all 400 colonies will raise another generation. However, efforts to maintain a habitat that can support 400 colonies is expected to increase the birds' numbers. At least 250 colonies are expected to raise young every year.

An important component of the landscape within this management area will be suitable nesting habitat. For the long term, the SRFS plans to keep 15 to 20 percent of the area in longleaf pine that is greater than 100 years old.

SRFS is presently identifying potential nesting habitat as recruitment areas. These areas are treated to remove existing hardwood midstory. They are prescribe-burned to maintain an open pine forest condition required by the RCW. The minimum size of these areas is 10 acres. Foraging habitat is then identified and maintained within 1/2 mile of the colonies and recruitment areas. This encourages expansion of the current population from existing active-colony sites that receive the same treatments as recruitment areas.

Old longleaf pine forests are prefered by RCW's

A harmless band is placed around leg of RCW to aid in tracking the bird.

MONITORING

Intensive monitoring of the SRS population has been ongoing. All birds are banded within 3 to 4 days of their birth to allow individual identification. All birds at the SRS are now banded. Data are gathered on their status and location at least once a month. This information provides accurate population-trend data and other data critical to accomplish translocation of birds as described below.

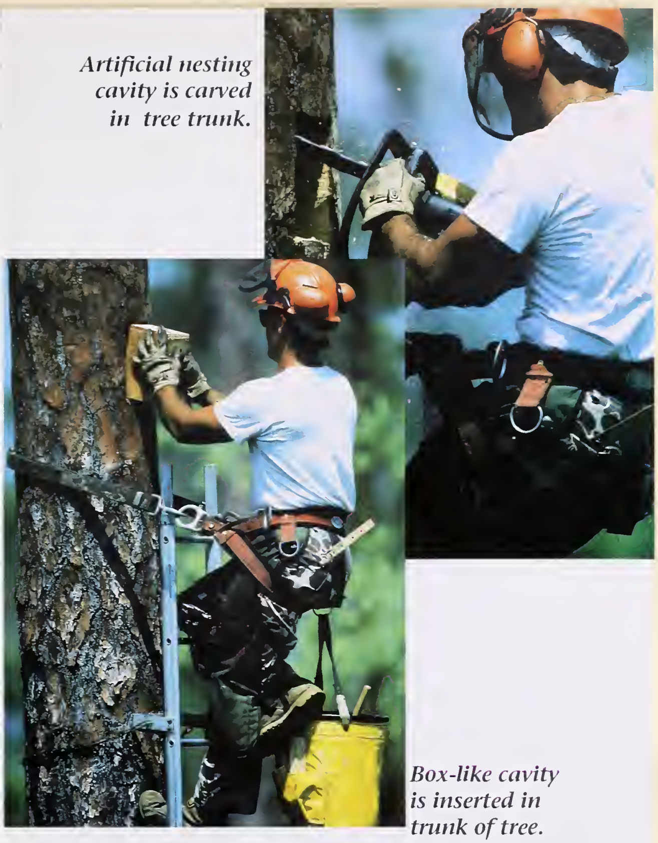
RESEARCH ACCOMPLISHMENTS

In 1985, DOE asked the Southeastern Forest Experiment Station to conduct red-cockaded woodpecker research on the SRS. The innovative techniques developed here have played a major role in the population growth over the past 5 years.

SEFES has developed an artificial cavity to insert in living pine trees. This supplements the limited number of existing natural cavities that occur on site. RCWs use cavities as nightly roosts throughout the year and for nesting purposes. Each RCW requires an individual cavity. Lack of large trees suitable for the birds to construct their own cavities is a major limiting factor for future population expansion. Installation of cavity inserts will increase both the likelihood of colonization of unoccupied territory and successful translocations. These techniques will play a major role in future recovery of the RCW across the South.

Translocation techniques have been tested, refined, and implemented on the SRS, as well as other locations. This proven technique often involves locating a juvenile female from within the SRS population. The female may also come from a donor population. The Apalachicola National Forest in Florida and the Francis Marion National Forest in South Carolina (prior to Hurricane Hugo) could provide females. The females are then moved to a single-male colony during the fall or winter. This technique has been successful on the SRS, with 90 percent of the birds having genetic ties to the Francis Marion population.

Genetic data have been collected on all birds as part of the intensive monitoring program. This work has been done with the assistance of the University of Georgia's Savannah River Ecology Laboratory, and the U.S. Fish and Wildlife Service's Cooperative Research Unit at Clemson University. Use of this genetic information will help scientists make decisions when matching birds for translocation.



Artificial nesting cavity is carved in tree trunk.

Box-like cavity is inserted in trunk of tree.

In 1985, the Savannah River Site's (SRS) red-cockaded woodpecker population totaled four birds in three colony sites. There was one breeding pair. The next year, at the request and with the support of the U.S. Department of Energy (DOE), a management/research program was initiated to establish a viable population of these woodpeckers.

Red-cockaded woodpecker on tree trunk

Since 1985, an intensive management/research effort has been ongoing at the Savannah River Site to assist the woodpeckers, named on the Federal endangered species list. Using proven treatment methods and newly developed techniques, the RCW population was increased to 53 birds in 11 breeding pairs by 1993.

The dramatic increase in the SRS population is the result of the dedicated work and creativity of the researchers, foresters and wildlife biologists working together for the Southeastern Forest Experiment Station (SEFES) and the Savannah River Forest Station (SRFS), with the cooperation of DOE.

FUTURE RESEARCH

Efforts will be made to develop new translocation techniques. Emphasis will be put on moving more than one bird. Studies are also planned on foraging and home range, RCW prey biomass, and landscape-level habitat fragmentation.

For further information, contact:
Manager, Savannah River Forest Station, P.O. Box 710, New Ellenton, SC 29809-0710, or Project Leader, Endangered, Threatened and Sensitive Wildlife, USDA Forest Service, Department of Forest Resources, Clemson University, Clemson, SC 29634-1003.

Photos by Derick Hamrick,
Images of the Wild

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